

Hazardous Substances

Celebrating Occupational Safety and Health Professional Day



environmental professionals who dedicate their careers to making sure that every employee leaves work injury and illness free to return home safety to their family, the American Society of Safety Engineers (ASSE) will celebrate Occupational Safety and Health Professional (OSHP) Day on May 9.

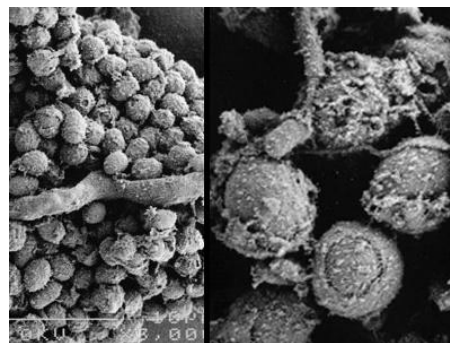
Read more:

<http://ehstoday.com/safety/management/occupational-safety-professional-day-0501/>

In an effort to recognize the ongoing efforts of occupational safety, health and

Spectroscopy Shines Light On Mold

When fungi grow indoors, they can potentially trigger asthma, allergies, and respiratory infections. Different species have been linked to different health problems. But identifying the specific type of mold in damp buildings requires growing the organisms and over a day of lab analysis. Now researchers have found that, with a spectrometer, they can identify in real time the microscopic fungi that may trigger allergies and asthma, promising to cut the time and expense of testing for mold.



Read more:

<http://cen.acs.org/articles/90/web/2012/05/Spectroscopy-Shines-Light-Mold.html>

Special Interest Articles:

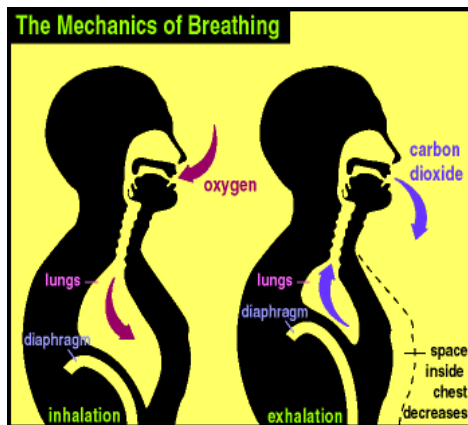
- [Breathing Rates](#)
- [Noise Sponge](#)
- [Hexavalent Chromium](#)
- [Whole Body Vibration](#)
- [Super Stars](#)

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Personal Exposure Monitoring Device Predicts Breathing Rates, Contributes to More Meaningful Environmental Dose Estimates



A new technology developed by a research team led by RTI International will help scientists better understand the relationship between environmental contaminants in the air and potential adverse health effects.

The new approach uses personal exposure monitors with built-in acceleration sensors to determine individual activity levels while predicting how fast adults, and potentially children, breathe pollutants in their environment. The advancement enables scientists to calculate potential dosage – how much pollutant enters the respiratory system – in real time.

Read more:

<http://www.rti.org/newsroom/news.cfm?nav=291&objectid=9DCD5B9D-5056-B100-3159553B458C3CE5>

Formaldehyde Exposure May Affect Fertility in Men

Occupational exposure to formaldehyde in Chinese men may be linked to reduced fertility. The wives of formaldehyde-exposed men had longer times to pregnancy (TTP) than the wives of men not exposed to formaldehyde. With adjustment for other factors, the rate of prolonged TTP was nearly three times higher for wives of men exposed to formaldehyde.



Read more:

<http://www.sciencedaily.com/releases/201>

[2/04/120430164227.htm](http://www.sciencedaily.com/releases/2012/04/120430164227.htm)

Amphibole Asbestos in Tree Bark—A Review of Findings for this Inhalational Exposure Source in Libby, Montana

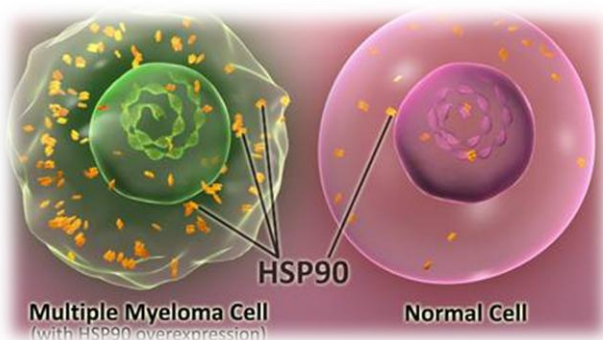
In June 2009, EPA designated the town of Libby, Montana, a public health emergency—the first and only time the EPA has made such a determination under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). From about 1920 until 1990, the leading source of vermiculite ore for the United States and the world was from a mine near Libby. This vermiculite ore was contaminated with fibrous and asbestiform amphibole in veins throughout the deposit. Today, areas surrounding the abandoned vermiculite processing/mining facilities and much of the town of Libby are contaminated with these asbestos fibers, contributing to an outbreak of asbestos-related diseases in the Libby population. Trees in Libby and in forested areas surrounding the abandoned mine have accumulated amphibole asbestos fibers on their bark surface, providing for inhalational exposures. Several studies have been conducted to further understand this exposure pathway. To address exposures to the public, Libby amphibole (LA) was measured in personal breathing zone and Tyvek surface wipe samples collected during firewood harvesting simulations, as well as in the ash and emissions of woodstoves when amphibole-contaminated



firewood was combusted. Occupational studies simulating wildland firefighting and routine U.S. Department of Agriculture (USDA) Forest Service activities have also been conducted in the forested areas surrounding the abandoned mine, demonstrating the potential for inhalational exposures during common regional workplace activities. We present a review of the findings of this emerging environmental health concern impacting not only the residents of Libby but applicable to other populations living near asbestos-contaminated areas.

Read more: Journal of Occupational and Environmental Hygiene Volume 9, Issue 6 June 2012 (Available with AIHA membership)

The Identification and Classification of Potential Carcinogens



Cancer is one of the leading causes of death in the industrialized world, and the identification and classification of potential carcinogens continues to be a challenge for the Occupational Safety and Health Administration (OSHA).

OSHA provides the standard for the identification, classification, and regulation of carcinogens at 29 CFR Part 1990. 29CFR1990.112(a), (b), (b)(1), and (b)(2) establish the criteria for categorization,

unless the Secretary of the U.S. Department of Labor (DOL) considers evidence under the provisions of 1990.143 (general provisions for the use of human and animal data), and/or 1990.144 (criteria for consideration of arguments on certain issue), and/or 1990.145 (consideration of substantial new issues or substantial new evidence), and determines that such evidence warrants an exception to these criteria.

Read more:

<http://www.aviation.dla.mil/ExternalWeb/UserWeb/aviationengineering/HTIS/bulletins/articles/2012/HTIS%20Bulletin/APR-JUN12.asp#TheIdentificationAndClassificationOfPotentialCarcinogens>

Dip Chip Technology Tests Toxicity on the Go

From human-made toxic chemicals such as industrial by-products to poisons that occur naturally, a water or food supply can be easily contaminated. And for every level of toxic material ingested, there is some level of bodily response, ranging from minor illness to painful certain death. Biosensors have long been used to safeguard against exposure to toxic chemicals.



Read more:

<http://www.sciencedaily.com/releases/2012/05/120514134255.htm>

PPE

Protective Eyewear for Military Personnel



The Authorized Protective Eyewear List or APEL, as many of you know it, is a list of Commercial Off The Shelf (COTS) Ballistic Protective Eyewear (BPE) products that are authorized for use by military Warfighters. This list was first created in October 2004 by Program Executive Office (PEO) Soldier and since then protective eyewear has become a vital

piece of every Warfighter's equipment. PEO Soldier's Soldier Protective Individual Equipment department manages the Military Combat Eyewear Program (MCEP) and certifies that APEL products not only meet the ANSI Z87.1 Industrial and Military Ballistic Standards but also the stringent performance and quality requirements. Over the years, PEO Soldier has continuously evolved improving the MCEP Program and expanding the APEL to provide more choice and improved protection. The latest evidence of this is their most recent update to the APEL in January 2012. Significant changes have occurred since the last update.

*Read more: VC&R Quarterly
Volume 3, Issue 3 (Email USAPHC-DCPM-Tri-Service@amedd.army.mil for a
subscription)*

Real Smart: Protective Clothing with Built-In A/C

In order to test the new "smart" protective vest, an experimenter wearing one has jogged several kilometers on the treadmill in a climate-controlled chamber at Empa. During the jog he lost 544 grams in weight through sweating -- but thanks to the vest's integrated cooling system this was still 191 grams less than if he had been wearing a conventional garment.



Read more:

<http://www.sciencedaily.com/releases/2012/05/120514104420.htm>

Radiation

Determining the Hazard Classification for Radioactive and Magnetized Materials



The transportation regulations for many common hazardous materials (e.g. flammable or corrosive liquids, compressed gases or oxidizers) depend on the physical or chemical properties (e.g. the flash point for flammable liquids) as well as the volume of material contained in the inner package. For example, the flash point for isopropanol results in it being classified as a Class 3 (flammable liquid) hazard with a Packing Group II. If the FLIS information for a NSN applicable to a container of isopropanol indicates that the container quantity is 0.5 liters, the transportation information included in an HMIRS record for that NSN should reflect the hazard class and packing

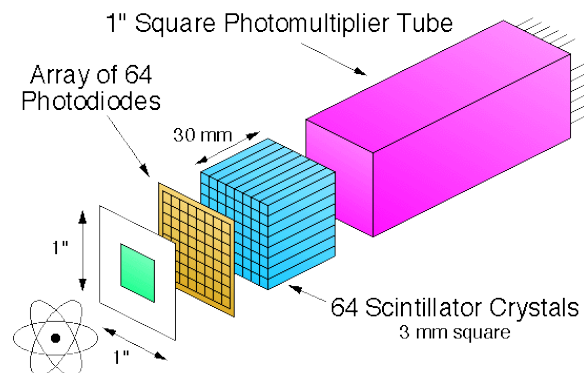
group for isopropanol as well as the fact that it can be shipped as a limited quantity. If instead the container quantity for that NSN was 2 liters, the limited quantity classification would not apply, and the information shown in HMIRS would be slightly different. However, conveying the transportation regulations for magnetized or radioactive materials is more complicated because the hazard classification itself can depend on the number of units shipped in the same package (for magnetized materials), or in the same shipment or consignment (for radioactive materials).

Read more:

<http://www.aviation.dla.mil/ExternalWeb/UserWeb/aviationengineering/HTIS/bulletins/articles/2012/HTIS%20Bulletin/APR-JUN12.asp#DeterminingTheHazardClassificationForRadioactiveAndMagnetizedMaterials>

Novel Radiation Surveillance Technology Could Help Thwart Nuclear Terrorism

To support the nation's nuclear-surveillance capabilities, researchers at the Georgia Tech Research Institute (GTRI) are developing ways to enhance the radiation-detection devices used at ports, border crossings, airports and elsewhere. The aim is to create technologies that will increase the effectiveness and reliability of detectors in the field, while also reducing cost. The work is co-sponsored by the Domestic Nuclear Defense Office of the Department of Homeland Security and by the National Science Foundation.



Read more:

<http://www.sciencedaily.com/releases/2012/05/120501145023.htm>

The Low-Level Radiation Puzzle



An environmental scientist challenges a concept adopted by American safety regulators about small doses of radiation. The prevailing theory is that the relationship between dose and effect is linear – that is, that if a big dose is bad for you, half that dose is half that bad, and a quarter of that dose is one-quarter as bad,

and a millionth of that dose is one-millionth as bad, with no level being harmless.

The idea is known as the “linear no-threshold hypothesis,” and while most scientists say there is no way to measure its validity at the lower end, applying it constitutes a conservative approach to public safety.

Some radiation professionals disagree, arguing that there is no reason to protect against supposed effects that cannot be measured. The environmental scientist contends that small doses could actually be disproportionately worse.

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Read more:

<http://green.blogs.nytimes.com/2012/05/02/the-low-level-radiation-puzzle/?ref=science>

[2/the-low-level-radiation-puzzle/?ref=science](http://green.blogs.nytimes.com/2012/05/02/the-low-level-radiation-puzzle/?ref=science)

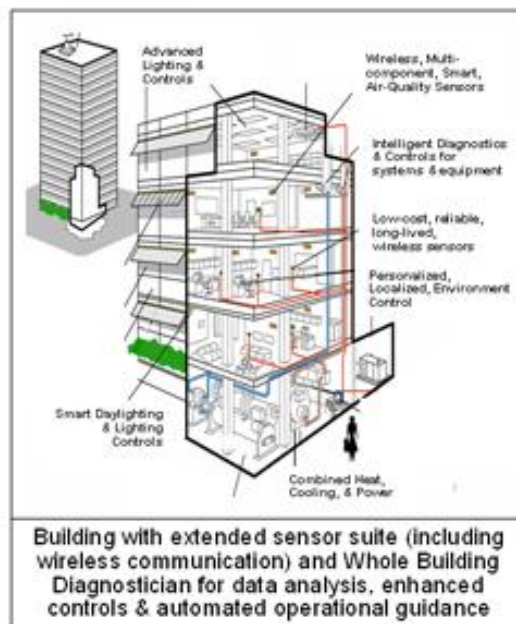
Ventilation

BIM: A Better View of Maintenance

Building Information Modeling (BIM) is a shared resource for information about a facility. True BIM software is more than a three-dimensional, computer-rendered model of a facility. It includes architectural data, and perhaps more importantly for maintenance and engineering departments, it holds comprehensive information on a facility's HVAC components, plumbing fixtures, doors, and windows, including product manufacturers and model information.

Read more:

<http://www.facilitiesnet.com/maintenance/operations/article/BIM-A-Better-View-of-Maintenance--13003>



Noise

Patented 'Noise Sponge' Quiets Combustion



A sponge-like material employed by a University of Alabama engineering professor can significantly quiet combustion, possibly making work environments safer and extending the life of equipment.

This technology decreases the noise generated by combustion systems at the source by placing a sponge-like material directly in the flame.

Read more:

<http://www.sciencedaily.com/releases/2012/05/120501182757.htm>

Survey of Noise Exposure and Background Noise in Call Centers Using Headphones

Call centers represent one of the fastest growing industries. However, there are health and safety hazards unique to this new industry. One of these potential hazards is hearing impairment caused by headsets. In this study, noise exposure assessment was performed at 21 call centers and for 117 operators. Although call center background noise does not contribute to noise exposure, it impacts working conditions and influences the headset volume setting. It was therefore measured at the same time as exposure to noise.

Results revealed that although the risk of hearing impairment was generally low, exposure could exceed the European Union regulation upper and lower exposure action values. Besides exposure to noise, background noise levels are often high with regard to recommendations for office



workers. Results are discussed and some recommendations are given, issued from on-site observations. Their application is intended to ensure the absence of excessive exposure to noise and improve acoustic comfort.

Source: Journal of Occupational and Environmental Hygiene Volume 9, Issue 6 June 2012 (Available with AIHA membership)

Preventive Medicine

Long Commute to Work Linked With Being Overweight: Study



Here's one reason to move closer to work. New research shows that people who spend more time commuting to work are also more likely to weigh more, have decreased

cardiorespiratory fitness, and have metabolic risk factors.

Scientists from Washington University in St. Louis found that people who have to travel more than 15 miles to go to work every day are also less likely to fulfill exercise recommendations, and are more likely to be obese. Meanwhile, hypertension is linked with having to travel more than 10 miles to work.

Read more:

http://www.huffingtonpost.com/2012/05/09/work-commute-overweight-health-blood-pressure_n_1500459.html

Early-Life Exposure to Secondhand Smoke Affects Girls More Than Boys

The negative health effects of early-life exposure to secondhand smoke appear to impact girls more than boys — particularly those with early-life allergic sensitization, according to new NIEHS-funded research from the University of Cincinnati (UC) College of Medicine.

Epidemiologists with UC's Cincinnati Childhood Allergy and Air Pollution Study (CCAAPS), funded by NIEHS, found that children exposed to high levels of secondhand smoke who also had allergic sensitizations during early childhood are at



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greater risk for decreased lung function at age 7 compared to children who had not developed allergic sensitizations by this age.

Read more:

<http://www.niehs.nih.gov/news/newsletter/2012/5/science-earlylife/index.htm>

New Report Provides a Decade of Analysis of Various Foodborne Illnesses

FoodNet is a collaborative program among CDC, 10 state health departments, the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS), and the Food and Drug Administration (FDA). FoodNet collects data from 10 U.S. sites regarding diseases caused by enteric pathogens transmitted commonly through food. FoodNet quantifies and monitors the incidence of these infections by conducting active, population-based surveillance for laboratory-confirmed illnesses.



Read more:

http://www.cdc.gov/media/releases/2012/a0510_foodnet.html

Women's Chemical Exposure During Pregnancy Promotes Obesity In Daughters.



Women exposed while in the womb to low levels of a common stain repellent are three times as likely to gain more weight and have large waists as young adults than women less exposed during development. This is the first time that this chemical, known as PFOA, has been linked to obesity in humans.

Women exposed to low levels of a common stain repellent while in the womb are three times as likely to gain more weight and have large waists as young adults than

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women less exposed during development. Meanwhile, the results of the two-decade study found no link between men's obesity and prenatal exposure to the chemical known as PFOA.

Read more:

<http://www.environmentalhealthnews.org/ehs/news/2012/03/2012-0418-prebirth-PFOA-obese-women/>

EPA Starts Over with Its Hexavalent Chromium Review

The EPA has quietly decided to restart its toxicology review of hexavalent chromium (Cr(VI)) in drinking water. The review, which was originally scheduled to be completed in 2011, is the last step in a decade-long process to adopt a drinking water standard in the US for Cr(VI), which is used in the production of stainless steel, chromate chemicals and pigments.

The EPA's decision to delay the process comes despite the agency concluding years ago that Cr(VI) was carcinogenic when inhaled. The EPA now says that too little information was available, until recently, on its potential to cause cancer when ingested.



Read more:

<http://www.rsc.org/chemistryworld/News/2012/March/epa-hexavalent-chromium-tap-water-review-delayed.asp>

CDC Lowers Lead-Poisoning Threshold for Kids



U.S. health officials on Wednesday lowered the threshold for what's considered lead poisoning in young children.

The change by the U.S. Centers for Disease Control and Prevention reduces the definition of lead poisoning from 10 micrograms of lead per deciliter of blood to 5 micrograms.

That means many more children under 5 years of age could be diagnosed with too

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much lead in their blood, a condition that's been linked to developmental problems and even a lower IQ.

Read more:

<http://health.usnews.com/health-news/news/articles/2012/05/16/cdc-lowers-lead-poisoning-threshold-for-kids>

Environmental Health

U.S. Army Concept Vehicle



The Army debuted its latest concept vehicle that not only significantly improves upon fuel economy, it also has the capability to generate and export electric power to Soldiers in austere locations like Afghanistan.

Following the grand opening of the arsenal's high-tech lab last week, the Fuel Efficient ground vehicle Demonstrator (Bravo version), or FED Bravo, was displayed to the public at the Society of Automotive Engineers 2012 World Congress, April 24-26. The FED Alpha concept vehicle shown to the public last fall was fuel-efficient, but could not export power like the Bravo version.

Read more

http://www.army.mil/article/78740/Concept_vehicle_rolls_out_to_meet_Detroit_public/

EPA Promotes Safer Alternatives to Nonylphenol Ethoxylates

The EPA has released the final report on alternatives to nonylphenol ethoxylates (NPEs) through the Design for the Environment (DfE) Alternatives Assessment Program. NPEs are widely used surfactants with a range of industrial applications and are commonly found in consumer products,



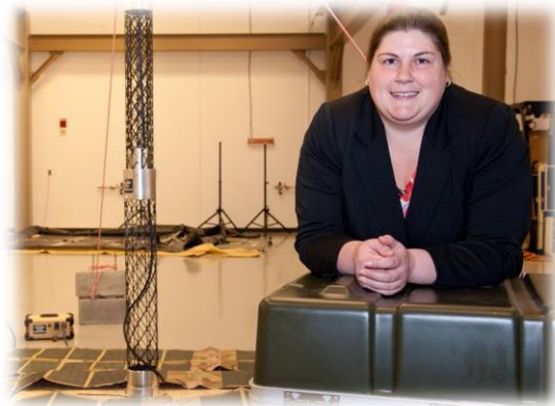
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such as laundry detergents. When released into the environment, they can be persistent and highly toxic to aquatic organisms. The report identifies eight safer alternatives to NPEs that meet EPA's criteria for safer surfactants.

Read more:

<http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/837566f324a4bbbf852579f90069ba00!OpenDocument>

Army Scientists Develop Deployable Renewable-Energy Solutions



Soldiers stationed in remote combat outposts face logistics and safety challenges to power their radios, laptops and GPS units. U.S. Army scientists are researching methods to harness the sun and wind to ease the burdens associated with transporting fossil fuels to dangerous areas.

To provide alternative power sources to Soldiers in combat, de Jong and her colleagues at RDECOM's Communications-- Electronics Research, Development and Engineering Center are developing two systems -- Reusing Existing Natural Energy from Wind and Solar, or RENEWS, and Renewable Energy for Distributed Undersupplied Command Environments, or REDUCE.

Read more:

http://www.army.mil/article/79471/Army_scientists_develop_deployable_renewable_energy_solutions/

Ergonomics

Retrospective Assessment of Occupational Exposure to Whole-Body Vibration for a Case-Control Study

Occupational whole-body vibration is often studied as a risk factor for conditions that may arise soon after exposure, but only rarely have studies examined associations

with conditions arising long after occupational exposure has ceased. We aimed to develop a method of constructing previous occupational whole-body vibration

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exposure metrics from self-reported data collected for a case-control study of Parkinson's disease. A detailed job history and exposure interview was administered to 808 residents of British Columbia, Canada (403 people with Parkinson's disease and 405 healthy controls). Participants were prompted to report exposure to whole-body vibrating equipment. We limited the data to exposure reports deemed to be above background exposures and used the whole-body vibration literature (typically reporting on seated vector sum measurements) to assign intensity (acceleration) values to each type of equipment reported. We created four metrics of exposure (duration of exposure, most intense equipment exposure, and two dose metrics combining duration and intensity) and examined their distributions and correlations. We tested the role of age and gender in predicting whole-body vibration exposure. Thirty-six

percent of participants had at least one previous occupational exposure to whole-body vibrating equipment.



Read more: Journal of Occupational and Environmental Hygiene Volume 9, Issue 6 June 2012 (Available with AIHA membership)

Safety

One-Third of U.S. Workers Aren't Getting Enough Sleep: Study



Despite the recommendation that adults get between seven and nine hours of sleep a night, a new study shows that about a third of us aren't hitting those goals.

Researchers from the Centers for Disease Control and Prevention looked at data from the 2010 National Health Interview Survey on sleep habits of U.S. workers. They found that 30 percent of people in the study -- which calculates to about 40.6 million

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workers in the U.S. -- get fewer than six hours of sleep a night.

Read more:

http://www.huffingtonpost.com/2012/04/27/workers-sleep-deprivation-hours_n_1456463.html

OSHA Renews Heat Illness Prevention Campaign

Like the 2011 campaign, it will be a nationwide effort to educate workers and employers about the hazards of working outdoors in high heat and how to prevent heat-related illnesses, including heat stroke.

OSHA's website includes a page of industry-specific educational materials and resources, including a new heat illness smartphone app in English or Spanish. Michaels urged employers and workers to visit the page and share the resources with workers who are exposed to heat, whether indoors or outdoors.



osha-renews-heat-illness-prevention-campaign.aspx?admgarea=news

Read more:

<http://ohsonline.com/articles/2012/05/07/>

Insects — Personal Protective Measures



When one reviews the history of wars and military conflicts, one will find that the numerous diseases (e.g., dysentery, typhus, yellow fever, malaria, dengue virus, etc.) that affected deployed units' strength were attributed to disease-carrying arthropods (DCAs). In addition to the diseases themselves, these arthropods (e.g., mosquitoes, sand flies, ticks, etc.) inflicted severe physical, psychological, and economic stresses that threaten the military objectives. Besides the disease

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itself, the arthropods inflicted bites that were painful, distracting and resulted in secondary infections, dermatitis, or allergic reactions. Also these same arthropods contaminated food as well as other assets necessary for the sustainment of both personnel and the mission.

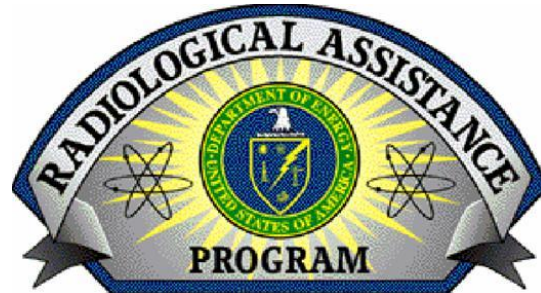
Read more:

http://www.aviation.dla.mil/ExternalWeb/UserWeb/aviationengineering/HTIS/bulletins/articles/2012/HTIS%20Bulletin/APR-JUN12.asp#Insects_PersonalProtectiveMeasures

Emergency Preparedness

NNSA, FBI Conclude Radiological Security Exercise at NIEHS in North Carolina

The National Nuclear Security Administration (NNSA) and the Federal Bureau of Investigation (FBI) announced the completion of a table-top counterterrorism exercise at the National Institute of Environmental Health Sciences (NIEHS) in Research Triangle Park, N.C. The exercise, Environmental Thunder, was the latest in NNSA's series of nationwide exercises aimed at giving federal, state and local first response teams and law enforcement critical, hands-on experience in responding to a terrorist attack involving radioactive materials. The exercise covered a broad range of security elements including alarm assessment and response, crisis management, threat assessment,



emergency response, consequence management and post-contingency procedures in the event of a terrorist incident.

Read more:

<http://nnsa.energy.gov/mediaroom/pressreleases/exerciseniehsnc5412>

Red Cross Launches New Emergency Preparedness Online Tools

The American Red Cross recently launched a new collection of free, online tools to help businesses, schools, and other organizations prepare for emergencies.

These enhancements to the Red Cross Ready Rating™ program offer steps that organizations can take to be better prepared.

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The new features include:

- An Emergency Response Plan Tool, which enables program members to build a customized plan to help their employees know their roles in the first 24-72 hours of an emergency;
- A *Next Steps* report that recommends specific actions members should take

and the level of effort required to execute them;

- A Resource Center that includes preparedness tools including activities and exercises, so businesses, employees, and students can better develop and practice preparedness plans;
- A Ready Rating Store with emergency supplies at the click of a button;
- An enhanced user experience that enables easier sign up and access to all tools available.

Read more:

<http://ohsonline.com/articles/2012/05/17/red-cross-launches-new-emergency-preparedness-online-tools.aspx?admarea=news>

FEMA National Preparedness Report Finds Shortcomings in Cybersecurity, Disaster Recovery

FEMA and its partners have released the 2012 National Preparedness Report (NPR) identifying significant progress the nation has made in areas of prevention, protection, mitigation, response, and recovery. Overall, the report found that the nation has increased its collective preparedness, not only from external threats, but also for natural and technological hazards.

The NPR highlights room for improvement in cybersecurity and recovery-focused capabilities. For example, almost two-thirds of U.S. firms report that they have been the



victim of cybersecurity incidents or information breaches. To counter these and related threats, federal and private sector partners have accelerated initiatives to enhance data collection, detect events, raise awareness, and response to cyber

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incidents. The report also identifies long-term recovery capabilities—including economic recovery, housing, and natural and cultural resources—as areas for improvement.

Read more:

<http://ohsonline.com/articles/2012/05/06/fema-national-preparedness-report-finds-shortcomings-in-cybersecurity-disaster-recovery.aspx?admgarea=news>

Deployment Health

'Blast Wind' Linked to Chronic Brain Injuries in Military



The same type of brain damage seen in athletes who suffer repeated concussions also occurs in soldiers exposed to large blasts, new research indicates.

In the study, researchers at Boston University and the Veterans Affairs Boston Healthcare System analyzed brain tissue from four U.S. military personnel who were known to have been close to explosions. The results, published online May 16 in *Science Translational Medicine*, showed that exposure to a single blast -- equivalent

to the force from a typical improvised explosive device (IED) -- results in chronic traumatic encephalopathy and long-term brain impairments associated with the condition.

Chronic traumatic encephalopathy, a progressive brain disorder that can only be diagnosed after death, has been reported in athletes with multiple concussions. Chronic traumatic encephalopathy and traumatic brain injury share common features, including psychiatric symptoms and long-term memory and learning problems.

Read more:

<http://health.usnews.com/health-news/news/articles/2012/05/16/blast-wind-linked-to-chronic-brain-injuries-in-military>

Improved Batteries, SWIPES to Lighten Soldiers' Load

A Soldier treks through treacherous terrain in a dangerous combat zone with a rucksack filled with meals ready-to-eat, first-aid gear, weapons, ammunition, radios and batteries. The U.S. Army Research, Development and Engineering Command is lightening the Soldier's load by developing smaller and lighter batteries. Scientists and engineers are unburdening the Soldier, increasing maneuverability, reducing fatigue, and cutting time needed for battery re-charging.

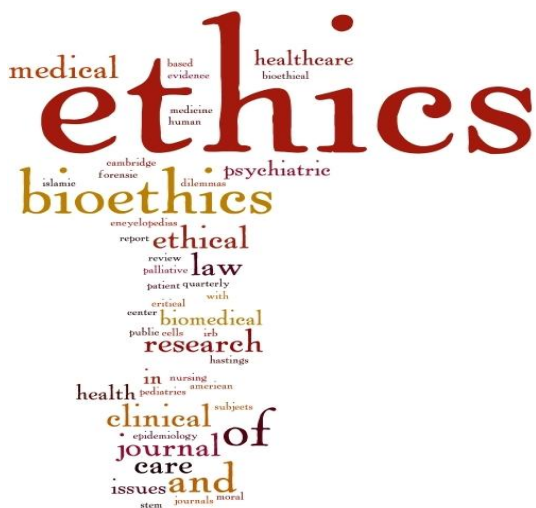
Read more:

[http://www.army.mil/article/79388/Improved batteries SWIPES lighten Soldiers load/](http://www.army.mil/article/79388/Improved_batteries_SWIPES_lighten_Soldiers_load/)



Nanotechnology

Study Examines Nanotechnology-Related Safety and Ethics Problem



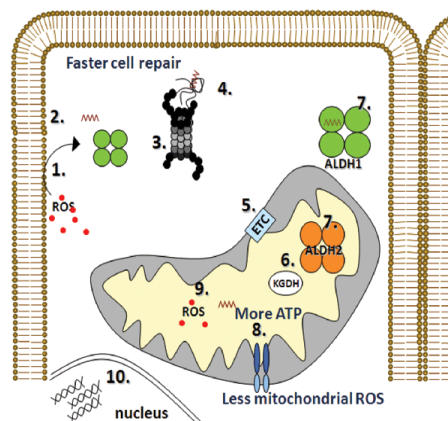
A recent paper by a research scientist in the Center for Nano Science and Technology (NDnano) at the University of Notre Dame, provides an example of a nanotechnology-related safety and ethics problem that is unfolding right now.

Read more: <http://phys.org/news/2012-04-nanotechnology-related-safety-ethics-problem.html>

New Method Quickly IDs Nanomaterials that Can Cause Oxidative Damage to Cells

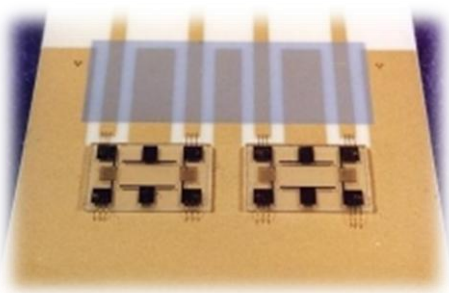
Because the semiconductor properties of metal-oxide nanomaterials could potentially translate into health hazards for humans, animals and the environment, it is imperative, researchers say, to develop a method for rapidly testing these materials to determine the potential hazards and take appropriate preventative action.

To that end, UCLA researchers and their colleagues have developed a novel screening technology that allows large batches of these metal-oxide nanomaterials to be assessed quickly, based on their ability to trigger certain biological responses in cells as a result of their semiconductor properties. The research is published in the journal ACS Nano.



Read more: <http://phys.org/news/2012-05-method-quickly-ids-nanomaterials-oxidative.html>

A Flexible Nerve-Gas Sensor



A chemical sensor based on polymer nanostructures can detect nerve gas at concentrations as low as 10 parts per trillion. With further development, the flexible sensor materials might enable

wearable systems for detecting chemical weapons, the researchers say. Currently, soldiers and police use mass spectroscopy-based devices to detect organophosphates, the group of compounds that includes the nerve gas sarin. A polymer scientist at Seoul National University, says sensors based on nanostructured polymers would be less expensive and more sensitive, while also being lightweight and flexible enough to make a wearable device built on plastic or even fabric.

Read more:

<http://cen.acs.org/articles/90/web/2012/05/Flexible-Nerve-Gas-Sensor.html>

Regulatory Research & Industrial Hygiene Professional News

AIHA

AIHA Celebrates NAOSH Week with Informative Video about Industrial Hygiene

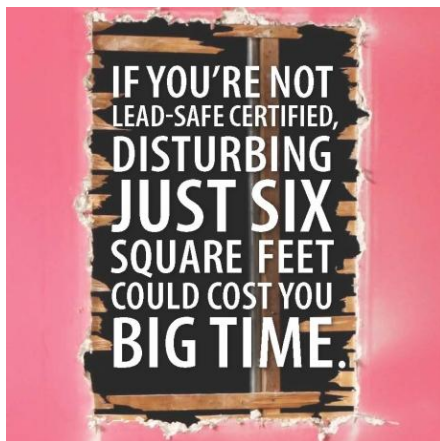
This year, in celebration of North American Occupational Safety and Health (NAOSH) Week, AIHA has launched an informative animated video about industrial hygiene titled "The Right Thing To Do." Through clear language and images understandable to a wide audience, the video explains the

role of industrial hygienists in keeping people safe at work.

Read more: <http://www.aiha.org/news-pubs/synergist/community/Pages/AIHACelebratesNAOSHWeekwithInformativeVideoaboutIndustrialHygiene.aspx>

EPA

Companies Fined for Failing to Notify Tenants about Lead Paint at Two Navy Bases in New England



Two companies have agreed to pay a penalty of \$89,300 to settle EPA claims that they violated federal lead paint disclosure laws at the Portsmouth Naval Shipyard in Kittery, Maine and the Naval Submarine Base New London in Groton, Conn.

Read more: <http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/84c1094c18f3e1ad852579f300621af4!OpenDocument>

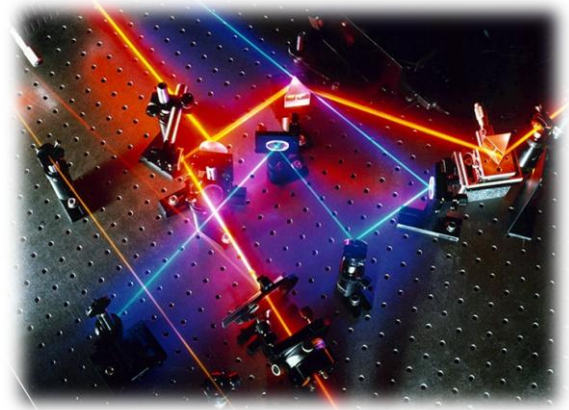
OSHA

OSHA and the Laser Institute of America Renew Alliance to Protect Workers from Laser Hazards

OSHA renewed its Alliance with the Laser Institute of America (LIA) to reduce and prevent worker exposure to laser beam and non-beam hazards in industrial, research and medical workplaces. The Alliance will also share information on laser regulations and standards, effects lasers have on the eyes and skin, laser control measures and laser safety program administration.

Read more:

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=22371



NIOSH

NIOSH Researchers Recognized for DOD Collaboration



NIOSH researchers in Morgantown, West Virginia, were recently recognized by the U.S. Department of Defense for their research and evaluations of anti-vibration gloves and riveting hammers as part of NIOSH/DOD collaborations. Their studies helped identify suitable protective equipment and reduced-vibration riveting hammers for Naval and DOD personnel, which could help reduce the risk of an

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occupational disorder linked with long-term use of certain powered hand tools.

Read more:

<http://www.cdc.gov/niosh/enevents/eneventsV1ON1.html#h>

USAPHC

May's DOEHRs-IH *Super Stars*



This month's DOEHRs Super Stars are recognized for their participation in the DOEHRs-IH training. Congratulations Fort Stewart for the highest attendance. Bravo to Camp Humphreys, Fort Bragg, Fort

Huachuca, and White Sands Missile Range for their dedication in attending the monthly mandatory DCO training.

How to become a DOEHRs-IH Super Star

- ✓ Do feel like you use DOEHRs-IH more than other program offices?
- ✓ Do you feel unnoticed?
- ✓ Do you feel like you have done great IH things with DOEHRs-IH?
- ✓ Do you wear a unitard and cape under your clothes? (Don't answer this question please)

Email the [Industrial Hygiene Training Coordinator](#) a brief synopsis about a new idea, a faster way, or a milestone you just met. Your Program Office just may be nominated as the monthly DOEHRs-IH *Super Star*.

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Training

This monthly summary is published by the Industrial Hygiene and Medical Safety Management Program (IHMSMP) for the U.S. Army Public Health Command.

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<http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/default.aspx>



NEW! Ventilation Fundamentals DCO

USAPHC is offering this course starting June 5, 2012. Students must have an active Defense Connect Online account. Access to the course is granted for 24 hours on the posted course date. Applications will not be accepted after 4 May. Incomplete applications will not be processed. To apply and for more information about the course visit <http://usaphcapps.amedd.army.mil/TrainCon/Describe.aspx?Name=VentFund>

Defense Connect Online (DCO)

Looking for free or affordable IH related courses for points, credits, or a refresher? The Army Institute of Public Health (AIPH) offers on-demand, teleconference, and on-site training options. Please contact the [Industrial Hygiene Training Coordinator](#) for more information.

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